

Improving the quality of cooking oil production through defect reduction using DMAIC six sigma = Meningkatkan kualitas produksi minyak goreng melalui penurunan cacat hasil produksi dengan menggunakan metode DMAIC six sigma

I Gusti Ngurah Wira Laksana Kusumajaya, author

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20525249&lokasi=lokal>

Abstrak

DMAIC Six Sigma adalah metode peningkatan kualitas yang mengedepankan kepuasan pelanggan. Belakangan ini, perusahaan tidak dapat memenuhi permintaan pelanggan dikarenakan barang jadi yang memenuhi standar dibawah jumlah pesanan. Maka dari itu penurunan cacat produksi untuk meningkatkan kualitas produksi minyak goreng dibutuhkan. Penelitian ini dilakukan dengan mengimplementasikan DMAIC Six Sigma untuk mengidentifikasi kebutuhan pelanggan, kondisi perusahaan saat ini, dan juga akar masalah penyebab produk cacat. Analytical Hierarchy Process (AHP) juga digunakan untuk membuat pembobotan importance dan performance setiap akar masalah yang berhasil diidentifikasi di dalam divisi produksi menggunakan metode Dmaic Six Sigma. Dua proses beserta kebutuhan pelanggannya berhasil diidentifikasi. Proses Refinery saat ini beroperasi di 3.43 sigma dan proses Fraksinasi beroperasi di 3.52 sigma. Kejadian cacat tertinggi di proses refinery beserta penyebabnya telah teridentifikasi. Kemudian, Importance dan Performance mereka dipetakan kedalam diagram Importance Performance Analysis (IPA) untuk memfokuskan penelitian pada atribut yang akan memiliki daya ungkit besar ketika diperbaiki. Empat strategi perbaikan telah diusulkan untuk ketiga atribut tersebut untuk meningkatkan kualitas produksi minyak goreng.

.....DMAIC Six Sigma is a quality improvement method that revolves around customer satisfaction. Lately, the company cannot fulfill customer orders as finished goods that are in accordance with customer requirements were below orders. Defect reduction to improve the quality of cooking oil production was therefore needed. This research was conducted by applying DMAIC Six Sigma cycle to understand customer requirements, the company's current condition, as well as the root cause for defective products. Analytical Hierarchy Process (AHP) was also used to weigh the importance and performance of each root cause identified in the production division through DMAIC Six Sigma. There are two major processes identified along with their customer requirements. The refining process is currently operating at 3.43 sigma while the fractioning process is at 3.52 sigma. Highest defect occurrences were identified on the refining process along with each respective root causes. Their importance and performance weight are mapped into an Importance Performance Analysis (IPA) diagram to focus the improvement project on attributes that provide higher leverage when improved. four improvement strategies were proposed for those attributes to improve the quality of cooking production.